

IN THE CLAIMS

Please amend the claims to read as indicated herein.

1. (canceled)

2. (canceled)

3. (previously presented) An illumination system for lithography with wavelengths of ≤ 193 nm comprising:

- (a) a first optical element, which is divided into first raster elements and lies in a first plane,
wherein said first plane defines an x-direction and a y-direction,
wherein said first raster elements each have an x-direction and a y-direction with an aspect ratio, and
wherein at least two of said first raster elements have aspect ratios of different magnitude; and
- (b) a second optical element, which is divided into second raster elements, wherein a second raster element is assigned to a first raster element,
wherein the illumination system defines a field,
wherein said field is illuminated in an object plane of the illumination system, and
wherein at least some of said second raster elements have an anamorphic optical effect, which is selected such that an aspect ratio of images of said first raster elements is substantially the same in said object plane, independent of said aspect ratio of said first raster elements.

4. (previously presented) The illumination system according to claim 3, wherein at least one of said at least two first raster elements with aspect ratios of different magnitude has an anamorphic optical effect.

5. (previously presented) The illumination system according to claim 3, wherein said at least two first raster elements with aspect ratios of different magnitude have an isotropic optical effect.

6. (previously presented) The illumination system according to claim 5, wherein said first raster elements have an isotropic optical effect.

7. (previously presented) The illumination system according to claim 4, wherein said first raster elements that have an anamorphic optical effect are of a shape selected from the group consisting of cylinders and toroids.

8. (previously presented) The illumination system according to claim 3, wherein said second raster element that has an anamorphic optical effect is of a shape selected from the group consisting of cylinders and toroids.

9. (previously presented) An illumination system for lithography with wavelengths of ≤ 193 nm comprising:

a first optical element, which is divided into first raster elements and lies in a first plane,

wherein said first plane defines an x-direction and a y-direction,

wherein said first raster elements each have an x-direction and a y-direction with an aspect ratio,

wherein at least two of said first raster elements have aspect ratios of different magnitude, and

wherein all of said first raster elements are completely illuminated in said first plane.

10. (previously presented) The illumination system according to claim 9, further comprising a collector unit, which illuminates said first plane with said first raster elements.

11. (previously presented) The illumination system according to claim 9, further comprising at least one field mirror.

12. (previously presented) The illumination system according to claim 3, further comprising at least one field mirror, wherein said second raster elements and said at least one field mirror image said assigned first raster elements in an object plane of the illumination system.

13. (previously presented) The illumination system according to claim 9, wherein said first raster elements are rectangular.

14. (previously presented) An illumination system for lithography with wavelengths of ≤ 193 nm comprising:

a first optical element, which is divided into first raster elements and lies in a first plane,

wherein said first plane defines an x-direction and a y-direction,

wherein said first raster elements each have an x-direction and a y-direction with an aspect ratio,

wherein at least two of said first raster elements have aspect ratios of different magnitude,

wherein the illumination system defines a field to be illuminated in an object plane of the illumination system, and

wherein said field represents a segment of a ring field.

15. (previously presented) A projection exposure system for microlithography, comprising:

(a) an illumination system for lithography with wavelengths of ≤ 193 nm having:

a first optical element, which is divided into first raster elements and lies in a first plane,

wherein said first plane defines an x-direction and a y-direction,

wherein said first raster elements each have an x-direction and a y-direction with an aspect ratio, and
wherein at least two of said first raster elements have aspect ratios of different magnitude;

- (b) an exit pupil, which partially collects an emission produced by a light source and further guides it to illuminate a field in an object plane of the illumination system;
- (c) a pattern-bearing mask, which lies in said object plane;
- (d) a projection device, with an entrance pupil, which coincides with an exit pupil of the illumination system, wherein said projection device images a lighted portion of said pattern-bearing mask in an image field of said projection device; and
- (e) a light-sensitive substrate, which lies in a plane of said image field.

16. (previously presented) A method for producing microelectronic components, comprising using the projection exposure system according to claim 15.

17. (canceled)

18. (canceled)

19. (previously presented) The illumination system according to claim 9, further comprising:

a second optical element, which is divided into second raster elements, wherein a second raster element is assigned to a first raster element, and wherein at least one second raster element has an anamorphic optical effect.

20. (currently amended) An illumination system, comprising:

an optical element having a first raster element on a support structure and a second raster element on said support structure,
wherein said first raster element has a first aspect ratio,

wherein said second raster element has a second aspect ratio,
wherein said first aspect ratio is not equal to said second aspect ratio,
wherein the illumination system defines a field to be illuminated in an object plane
of the illumination system, and
wherein said field represents a segment of a ring field.

21. (currently amended) An illumination system for radiation wavelengths of ≤ 193 nm, comprising:

an optical element having a first raster element on a support structure and a second raster element on said support structure, wherein said first and second raster elements are of different sizes,
wherein the illumination system defines a field to be illuminated in an object plane of the illumination system, and
wherein said field represents a segment of a ring field.

22. (canceled)

23. (canceled)

Please add the following claims, newly numbered as claims 24 through 27.

24. (new) The illumination system according to claim 20, wherein said support structure is a raster element plate.

25. (new) The illumination system according to claim 21, wherein said support structure is a raster element plate.

26. (new) An illumination system for radiation of wavelengths ≤ 193 nm, comprising:

an optical element having a first raster element situated substantially in a plane and
a second raster element situated substantially in said plane, wherein said first
and second raster elements are of different sizes,
wherein the illumination system defines a field to be illuminated in an object plane
of the illumination system, and
wherein said field represents a segment of a ring field.

27. (new) The illumination system of claim 26, wherein the first and the second
raster element are reflective.